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Hannibal, CL and Kauppi, K (2019) Third Party Sustainability Assessment: Is It A Multi-Tier Supply Chain Solution? *International Journal of Production Economics*, 217. pp. 78-87. ISSN 0925-5273

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Version: Accepted Version

Publisher: Elsevier

DOI: <https://doi.org/10.1016/j.ijpe.2018.08.030>

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Third party social sustainability assessment: Is it a multi-tier supply chain solution?

Abstract

The paper examines the different third party approaches used to assess the social sustainability of global multi-tier supply chains. Information asymmetries between supply chain actors and stakeholders can result in uncertainty about how a good has been produced and traded, resulting in sustainability uncertainty. Third party social sustainability assessment is one mechanism used to monitor and communicate the credentials of everyday products to stakeholders. We frame our study using information processing theory to discuss how third party assessors can help to reduce sustainability uncertainty. As social sustainability is of particular importance in labor-intensive industries, empirical data is drawn from agriculture, textiles, handicrafts, footwear and consumer electronics supply chains. The analysis of semi-structured interviews with assessors reveals differing approaches to assessment. We show how these approaches utilize differing numbers of supply chain tiers. Some, for example, focus only on the farmer or raw material supplier when assessing social sustainability, which raises questions about the credentials of actors further downstream. The communities and livelihoods of supply chain actors, often located in the global South, can be dependent on the new, niche and potentially more profitable markets made available to goods that can demonstrate their social sustainability credentials. Robust assessment is therefore integral in accessing these new markets. The study offers a comparison between different assessors that will be of interest to scholars and also to supply chain actors considering engaging in social sustainability assessment.

Keywords: information processing theory, indicators, social sustainability, uncertainty

Paper type: Research paper

1.0 Introduction

The outsourcing trends of global supply chains have shifted labor-intensive production activities to lower labor-cost countries (Perry and Towers, 2013). In consequence, complex supply chain configurations are in operation, utilizing numerous suppliers across multiple supply chain tiers, and potentially limiting visibility across the entire chain (Awaysheh and Klassen, 2010; Huq *et al.*, 2014). Consumers, non-governmental organizations (NGOs) and governments repeatedly raise concerns about the wages, working hours and working conditions

of supply chain actors (Andorfer and Liebe, 2012), particularly in the lower tiers. High profile transgressions concerning the social sustainability of supply chains are widely reported (Busse *et al.*, 2017; Foerstl *et al.*, in press). Threats of negative publicity, consumer boycotts and increased scrutiny therefore often emerge as the key drivers for measuring and managing social sustainability performance (Brønn and Vidaver-Cohen, 2009). There is an increasing focus from stakeholders, including consumers, investors, local communities, non-profit organizations, legislators and regulators, on the way in which goods are produced and traded (Govindan *et al.*, 2013; Koh *et al.*, 2012). The mechanisms used to assure the social sustainability credentials of everyday products sourced from global multi-tier supply chains are therefore under the spotlight. Scrutiny places increased demands on supply chain actors. A pressing sustainability challenge is the lack of information about trading practices in complex supply chains, and hence supply chain actors often experience high sustainability-related uncertainty (Busse *et al.*, 2017; Foerstl *et al.*, in press). The market for socially sustainable products can open up new trading channels for producers and raw material suppliers, often based in the global South. Therefore, the importance of ensuring robust systems for quality assurance across multi-tier supply chains to reduce sustainability uncertainty is crucial to many livelihoods and communities, as well to the economic performance of the buying firms often located in the global North (Busse *et al.*, 2017).

Drawing on information processing theory (Galbraith, 1973), we focus on third party assessment as a mechanism used by multi-tier global supply chains to measure and communicate their social sustainability performance; i.e. to reduce their sustainability-related uncertainty. Rather than conceptualizing the focal firm (Varsei *et al.*, 2014) or the first-tier supplier (Wilhelm *et al.*, 2016) as driving the development of socially sustainable supply chains, third party assessment utilizes actors within and outside of a supply chain to collect, analyse and report on performance data (Albersmeier *et al.*, 2009; Hatanaka *et al.*, 2005). It requires co-ordination across the supply chain from internal stakeholders including farmers, raw material extractors, distributors and retailers, and from external stakeholders such as third party assessors and NGOs (Yawar and Seuring, 2017). The performance of the whole chain is under scrutiny, and hence the outcome is contingent on a collaborative approach to social sustainability (Awaysheh and Klassen, 2010; Hassini *et al.*, 2012).

As Govindan *et al.*, (2014) point out, it is only recently that research has begun to focus on sustainability issues in supply chain management (SCM). Historically, economic advantage

has dominated SCM discourse and hence the focus has been on the dyadic relationship between buyer and seller. Examining dyadic relationships has permeated into studies of sustainable supply chains, yet this perspective ignores the complexities of operating as a network and fails to represent a multi-cultural global perspective (Fahimnia *et al.*, 2015). Scholars show how even though authors may describe their sustainability research in relation to supply chains, it is an internal or dyadic perspective that is analyzed (Miemczyk *et al.*, 2012). In consequence there are few empirical studies on sustainable SCM that consider the entire multi-tiered supply chain (Huq *et al.*, 2014).

In light of the increasing focus on human rights, labor and working conditions in global supply chains that purport to be socially sustainable, we adopt a supply chain perspective to examine how complex supply chains capture information that has been described as unquantifiable (Burritt and Schaltegger, 2014). We focus on supply chains for which social issues are particularly pertinent: agriculture, textiles, handicrafts, footwear and consumer electronics. We examine ten third party assessors focused on assuring the social sustainability credentials of products. It is important to note from the outset that our study is not concerned with the impact of assessment on social sustainability performance. Rather, we are interested in understanding and explaining how multi-tiered assessment is designed and implemented to measure and assure the social sustainability of the entire supply chain.

Our study makes an important contribution to the examination of social sustainability assessment by utilizing information processing theory as a lens to explore how sustainability uncertainty can be reduced. By using a third party to collect and process supply chain information, stakeholders may gain access to more and better information about the trading practices of supply chains that purport to be socially sustainable. Such information may contribute to a greater degree of certainty in sourcing, investment and consumer purchasing decisions. We show how different approaches to assessment examine varying numbers of supply chain tiers, and discuss how the assessor can act as a bridge to support the measurement and communication of social sustainability performance to stakeholders. We reflect on the implications of our findings for the assurance of socially sustainable goods. Our paper is structured as follows: We begin by justifying the theoretical framing of our study prior to focusing our attention on the characteristics of third party supply chain assessment. Next, we explain our qualitative research design and move on to present our empirical findings. We

discuss the implications of our findings and raise questions about the ability of current assessment practices to assure the social sustainability credentials of products.

2.0 Framing and context of the study

2.1 Theoretical frame: Information processing theory

We use information processing theory to frame our research. Developed by Galbraith (1973) to address internal organizational issues related to task uncertainty, the theory has been extended to research on inter-organizational interactions and supply chains (see Premkumar *et al.*, 2005; Bode *et al.*, 2011; Kauppi *et al.*, 2016; Fan *et al.*, 2017). Uncertainty as a key organizational driver for collecting and processing relevant information underpins the theory (Kreye, 2017). In supply chain studies, the typical focus has been on uncertainties related to the market, environment, partnerships and supply, delivery reliability, quality and inventory levels, weather and politics (Premkumar *et al.*, 2005; Fan *et al.*, 2017; Zhu *et al.*, 2018; Srinivasan and Swink, in press). Given our examination of social sustainability in multi-tier global supply chains, we focus on sustainability uncertainty as the source of stakeholder information processing needs.

Several factors contribute to sustainability uncertainty in global supply chains. There is uncertainty related to both the complexity and limited visibility of the chain. This is often due to utilizing many small producers upstream from the buyer in (culturally) distant locations (Premkumar *et al.*, 2005; Karjalainen and Moxham 2013; Tachizawa and Wong, 2014; Busse *et al.*, 2017; Foerstl *et al.*, in press) and the frequently changing supplier relationships (Tachizawa and Wong, 2014). Instances of mock compliance to social sustainability codes, and work being outsourced to yet more tiers in the chain (Huq *et al.*, 2014), add to visibility challenges. Sustainability uncertainty is compounded because socially sustainable goods are characterized as ‘credence goods’: they possess attributes that consumers cannot evaluate themselves, even after consumption (Giovannucci and Ponte, 2005). It has been noted that these attributes do not ‘exist’ unless their presence is communicated (Pullman and Dillard, 2010). Information asymmetries therefore exist between suppliers and customers, and so purchasing decisions and product reputation are contingent on consumer confidence in the accuracy of the sustainability related information that is provided (Ballet and Carimentrand, 2010; Renard, 2005). The measurement of supply chain performance in this context must focus on process attributes, such as child free labor, rather than product attributes, such as size or

weight. These types of process attributes are inherently difficult to substantiate, particularly across multi-tier supply chains (Yawar and Seuring, 2017), yet very important to address stakeholder concerns (Busse *et al.*, 2017; Foerstl *et al.*, in press).

To tackle information processing needs organizations must develop information processing capabilities (Kreye, 2017). Bridging and buffering are two strategies that can be used (Bode *et al.*, 2011). Buffering is an effort to incorporate slack into operations (Kauppi *et al.*, 2016; Liu *et al.*, 2010). Achieved via excess inventory or slack capacity, this strategy is not suitable for social sustainability performance wherein the focus is on assuring trading practices rather than on product lead times or supply chain agility. Thus, supply chain actors must implement structural mechanisms to ensure better flow of information (Liu *et al.*, 2010), i.e. they must engage in bridging (Bode *et al.*, 2011). A bridge is used to facilitate access to information and to monitor a partner (Bode *et al.*, 2011). In previous research, inter-organizational information systems have been suggested as a way to increase information processing capabilities (Premkumar *et al.*, 2005). However, with regards to social sustainability in labor intensive industries, technology solutions are not available given the infrastructure and resources of suppliers in developing countries. The few recent studies on how to reduce sustainability related uncertainty have focused on the managerial efforts of the buying firm, such as insourcing, product redesign and reshoring, i.e. information processing mechanisms implemented by the focal firm (Busse *et al.*, 2017; Foerstl *et al.*, in press). Bridging can take different forms including forming relationships with influential parties, risk management systems and monitoring (Bode *et al.*, 2011). We therefore recognize the use of third party assessment as a bridging approach used by supply chain actors to increase their capability in processing information to reduce sustainability uncertainty.

2.2 Third party assessment

Third party assessors fulfil stakeholder demands for information about how a product has been produced and traded; information needs the individual actors are often unable to provide. Thus in response to growing stakeholder demand for information on the sustainability credentials of multi-tiered supply chains, a plethora of labelling and certification schemes are currently in operation, resulting in what has been described as a standards market where different schemes compete for adoption by consumers and supply chains (Hatanaka and Busch, 2008; Reinecke *et al.*, 2012). There is no standard approach to social sustainability assessment and multiple logos and certification schemes are currently in practice, with examples including coffee

(Giovannucci and Ponte, 2005; Reinecke *et al.*, 2012), cocoa (Hartlieb and Jones, 2009) and textiles (Perry and Towers, 2013). Whilst it is anticipated that sustainability information would be welcomed by stakeholders, the multiplicity of logos and certification has been criticised for causing consumer confusion, increasing certification costs and duplicated activity (Fransen, 2011). There is often a lack of clarity about what is being measured, and by whom, and whether assessments are conducted by actors in the supply chain or by external parties. Questions are therefore raised about how effectively the different assessments actually solve the problem of sustainability uncertainty. The trend for multiple assessment approaches looks set to continue, with global retailers increasing their engagement with socially sustainable product lines (Hughes, 2015) and proliferation, rather than consolidation, of market signalling mechanisms (Reinecke *et al.*, 2012). It is thus important to study how such varied assessments are able to respond to sustainability uncertainty in global supply chains and to reflect on whether the information processing that is offered meets the needs of stakeholders.

In situating our study in the context of social sustainability assessment, it is important to clarify the operations of this governance mechanism. Popular in food supply chains concerned with safety standards, the assessment utilizes actors within and outside of the chain to assess performance against standards set either by external organizations or by the focal firm (Albersmeier *et al.*, 2009). For social sustainability, engagement with this process is usually on a voluntary basis rather than as mandated by government. Where standards are set by the focal firm, for example Starbucks' Shared Planet or H&M Conscious, engagement with assessment is a requirement (Boughton, 2008; Whitehead, 2015). We focus on voluntary third party assessment, whereby the supply chain enters into the assessment voluntarily, and is judged against standards set by an external organization. This process generally operates as follows: firstly, an application is made to a third party assessor, next a pre-assessment and documentation review is conducted, followed by an on-site audit and finally, if conformity is verified, successful assessment is communicated (Hatanaka *et al.*, 2005). Hence, this approach differs from the more widely held assumption that the focal firm adopts overall responsibility for governing sustainable performance activities (Seuring and Müller, 2008). There are limited studies that examine third party assessment in multi-tiered supply chains, and hence we conceptualize the third party assessor acting as a bridge between all supply chain actors. In understanding information flows between actors, we recognise that this information will not focus solely on social sustainability. For information flows between supply chain actors and

the third party assessor, we expect this information to be dominated by a focus on social sustainability.

Scholars have noted how the use of third party assessment may offer supply chains a comparative advantage as it is perceived as more objective and independent than mandated or corporate assessment (Bernstein and Cashore, 2007; Hatanaka and Busch, 2008). Historically, the ideology of using a third party to demonstrate a socially sustainable supply chain seemed to be in line with Gereffi *et al.*'s (2005) notion of relational value chain governance. Herein regulation occurs through reputation, social proximity and ethnic ties. This is certainly how third party assessors such as Fairtrade began, whereby strong relationships with producers were forged to develop organizational capacity and producer equity (Doherty and Huybrechts, 2013). Yet third party assessment is not without its critics. Some perceive it as a way of supply chains outsourcing their reporting responsibilities and thus avoiding blame if a problem arises (Renard, 2005). Others find evidence of mock compliance, limited interest in assessing suppliers beyond tier one of the chain and poorly trained assessors (Albersmeier *et al.*, 2009; Huq *et al.*, 2014). There is also the risk that a third party will not carry out an objective, independent assessment (Huq *et al.*, 2014). Despite reported shortcomings, there has been a sharp rise in the use of third parties to assess the social sustainability performance of global supply chains (Hatanaka and Busch, 2008).

2.3 Development of research question

In summary, we are witnessing stakeholder demands for more and better supply chain information about how goods are produced and traded, and a rise in voluntary third party performance assessment due to the information processing needs of supply chain actors, leading to the emergence of a social sustainability standards market. Against this backdrop, and particularly in light of the relatively limited research on this topic, an examination of how voluntary third party social sustainability assessment is operationalized in multi-tiered supply chains appears apposite. We acknowledge an increase in supply chains drawing on their social sustainability credentials with the objective of attaining a competitive advantage. This is a fairly recent phenomenon and thus an examination of assessment in this context is important for two key reasons. Firstly, the pricing of the product and its value proposition are contingent on the robustness of the information provided by the assessment. Thus, the ability of supply chains to demonstrate their social sustainability credentials is wholly dependent on the quality of the information collected and disseminated, and on whether stakeholders have confidence

in this information. At present, little is known about how such assessment activities are carried out. Secondly, supply chains trading on their social sustainability performance are increasingly engaging in third party voluntary assessment as a means of demonstrating their credentials to stakeholders. This mode of performance assessment has created a competitive standards market. Such a market is of increasing importance and yet limited research has been conducted on the structures and practices of third party assessors from a SCM perspective. We therefore wish to understand more about how this new form of supply chain governance is operationalized and the implications for the assurance of social sustainability. We therefore frame our study by posing the following research question:

How does the third party assessment of social sustainability act as a bridging mechanism in multi-tiered supply chains?

3.0 Research Methodology

3.1 Empirical context

Given the paucity of empirical studies examining the measurement of social sustainability across multi-tier supply chains, it was very difficult to replicate or to extend upon previous research designs. In consequence, we conducted an exploratory study designed to elicit new insights into the operationalization of voluntary third party assessment as a form of bridging in global supply chains. To enable the collection of what is often described as ‘process’ data, and to capture information that may be surprising to us, we utilized a qualitative research design (Langley, 1999). This approach has been adopted by recent studies examining aspects of social sustainability that go beyond the buyer-supplier dyad, and hence also seemed appropriate to our context (Huq *et al.*, 2016; Reinecke *et al.*, 2012). As the aim of our study was to develop an understanding of third party assessment we were interested in collecting rich data from a real setting and to focus on capturing contextual detail (Lincoln and Guba, 1985). Our unit of analysis was the assessment activities that were conducted to assure the social sustainability performance of the supply chain. We were interested in capturing information from a range of voluntary third party assessors and opted for a research design based on semi-structured interviews. As previously noted, social sustainability is of particular prominence in labor intensive industries (Zorzini *et al.*, 2015), and hence we situated our study in this context.

3.2 Data collection

To execute our study it was important to identify voluntary third party assessment initiatives with a focus on the social dimension of sustainability. By drawing on Zorzini *et al.*'s (2015) synthesis of the constituents of social sustainability, we conceptualized social issues as concerned with:

- Human rights – labor conditions (forced labor, child labor), working hours, freedom of association.
- Safe working conditions.
- Community – economic development.
- Diversity – purchasing from minority/female-owned business enterprises.
- Ethical behaviour in sourcing decisions.
- Respect for local democratic institutions.

We conducted a literature and digital search to identify appropriate assessment initiatives and identified relatively few organizations that met our multiple criteria of i) having a focus on assessing social sustainability, ii) operating in labor-intensive industries, iii) engaging with multi-tier supply chains and ii) acting in a third party capacity. Drawing on assessment initiatives based across the world, we identified sixteen as meeting our criteria and hence offering a compatible sample with literal replication logic (Voss *et al.*, 2002). We identified Directors (or equivalent) from each organization. We expected that those operating at Director level would have sufficient understanding of assessment to be suitable for our study. The Directors from each of the sixteen organizations were contacted to request participation and were also sent a link to a short video produced by the authors that outlined the aims and scope of the study, and highlighted its proposed outputs and the potential benefits to current practice. Due to the competitive nature of the context, as identified in recent studies, anonymity was assured. In some instances the Director provided details of a colleague whom they deemed as more appropriate for interview (e.g. Head of Commercial Relations, Accreditation Programme Manager) who we subsequently contacted. Of the sixteen organizations contacted five did not reply to our initial and follow-up requests, one declined and ten agreed to take part. We therefore were able to collect data from 63% of voluntary third party assessors with a principal focus on social sustainability. In discussing the study with those who had agreed to take part, it became clear that many of the assessment initiatives were made up of very few office based staff. We were advised that multiple staff engaging in interviews would detract from the running of the operation and would preclude assessment initiatives from being included in our

study. As we wished to collect data from as many assessors as possible, we opted for a single respondent approach to enable participation by all who initially agreed to take part. Details of the voluntary assessment initiatives that took part in the study are detailed in Table 1.

Voluntary Third Party Assessor	Role of Interviewee	Products Assessed
A	Director of Standards and Pricing	Bananas, cocoa, coffee, cotton, flowers, fresh fruit, honey, gold, fruit juices, rice, spice, herbs, sports balls, sugar, tea, wine,
B	Assessment Co-ordinator	Oil, nuts, seeds, sugar, bananas, cocoa, fresh fruit, dried fruit, juices, coffee, honey, wine, quinoa, handicrafts, tea, flowers
C	Head Commercial Relations	Coffee, flowers, wine, beer, fruit, cotton, tea, cocoa, chocolate, sugar, honey, rice, quinoa, cosmetics, spices, herbs, oils, walnut, dried fruit, sports balls
D	Assessment Consultant	Clothing, textiles, leather, footwear
E	Director of Operations	Bananas, cane sugar, cocoa, coffee, dried fruit, dried vegetables, flowers, fruit, fonio, fresh fruit, fruit juices, gold, herbs, honey, nuts, oilseeds, quinoa, rice, spices
F	Chief Executive	Handicrafts, clothing
G	Senior Research and Impact Advisor	Bananas, chocolate, gold, coffee, cotton, flowers, sugar, tea, wine
H	Executive Director	Sugar, handicrafts, bananas, coffee, cocoa, banana/plantain chips, fruit juices, jams, herbs, honey, quinoa
I	Accreditation Programme Manager	Coffee, cocoa, electronics, apparel, footwear
J	Stakeholder Relations Manager	Consumer electronics, textiles, clothing, footwear

Table 1 – Details of voluntary third party assessors that took part in the study

A semi-structured interview protocol was informed by the themes from the literature and was shared with the interviewees prior to the interview. Interviews focused on the history of the assessor, the aim(s) of the assessor, development of performance metrics, data collection methods, information processing and assessment. As the interviewees were based across Europe and North and South America the interviews were conducted over the telephone or Skype, recorded and transcribed verbatim. Interviews lasted between 45-60 minutes. In addition to the interview data internal documentation (i.e. policy and strategy documents) was shared by the interviewees. We also gathered publicly available material where possible from websites and reports to augment the primary data collected and to guard against any pressure felt by interviewees to give answers that were socially acceptable.

3.3 Data analysis

We began our analysis by using the data collected to map the information processing activities for each assessor. We wished to understand the timeline, the actors involved and the activities carried out. We were able to identify timescales, types of activities, those responsible for activities and the types of information that were collected and shared. We then compared the different approaches to collecting, analysing and communicating information about social sustainability that were used by the ten assessors and formed clusters of similar activities. Next we revisited the interview transcripts and used an iterative process that permitted a cycling between emergent data, concepts and relevant literature to identify important themes (Gioia *et al.*, 2012). In addition to themes based on information processing, emerging themes were identified as the competitive nature of assessment in this sphere, approaches to supplier development, the multiple roles played by assessors and some scepticism around the efficacy of assessment to make a difference to workers. Finally, we looked for commonalities and differences across the ten assessors to develop our comparative analysis (Eisenhardt and Graebner, 2007). We shared our findings with an overarching international body that provides good practice guidance for assessors interested in developing measurement systems for social sustainability. This body invited us to present our findings to its membership and we delivered a webinar to 30 practitioners and researchers. This further step in our analysis allowed us to test our findings with an experienced audience and allowed us to verify the themes we had identified. Finally, in light of the feedback received from the expert audience, we revised our analysis and developed a more fine-grained information processing map for each assessor, which permitted a more comprehensive comparison and clustering. We were thus able to examine the role of the assessor as a bridge, as will be discussed in the Findings.

4.0 Findings: Assessing social sustainability in multi-tiered supply chains

In mapping the information processing activities used to assure social sustainability, three different approaches emerged. These different approaches are illustrated as Figure 1. For Approach 1, performance measures were developed through internal consultation, the measurement focus was the whole supply chain, data was collected through audit, and action plans for performance improvement were established. For Approach 2, the activities were the same as for Approach 1, however an important difference was how the focus of measurement was on upstream supply tiers only rather than the entire supply chain. Instead of developing internal performance measures, Approach 3 used existing external criteria and, similar to

Approach 2, the measurement focus was on upstream tiers of the chain only. The key activities of each approach to collecting, assessing and communicating sustainability performance information are now defined and explained.

	Process of developing assessment criteria	Assessment criteria	Focus of assessment	Data collection process	Communication activities
Approach 1	Derived from internal consultation	<ul style="list-style-type: none"> • Freedom of association, collective bargaining and industrial relations • Forced labour • Child labour • Abuse, harassment, inequity • Fair remuneration • Health and safety • Traceability • Democracy, participation and transparency • Hours of work • Solidarity 	Entire supply chain	On-site audit	<ul style="list-style-type: none"> • Audit reports submitted centrally for analysis • Areas for improvement identified • Action plan developed • Timescale for improvement actions communicated
Approach 2	Derived from internal consultation		Upstream supply chain tier(s)	On-site audit	
Approach 3	As per existing external measures		Upstream supply chain tier(s)	On-site audit	

Figure 1 – Information processing activities

i) Designing systems to assess social sustainability

From the data collected we were able to identify the following themes related to the systems designed to process social sustainability information, each of which is discussed in turn:

- Developing measurement criteria.
- Performance measures.
- Focus of measurement.
- Data collection

Developing measurement criteria: The ten third party assessors had broadly similar aims; to assess and assure the credentials of products that claim to be socially sustainable. Some had additional specific goals relating to community development, however in comparing the information collected from each initiative we found that the assessment of trading relationships, human rights and working conditions were made explicit by all. Two approaches were used to develop measurement criteria. One was the development of measures through internal discussion between the third party assessor and supply chain actors. Proponents of this approach saw it as more inclusive and in consequence the resulting measures were pertinent to supply chain actors. *“If you impose criteria which aren’t very prioritized or feasible...all you are doing is throwing them [supply chain actors] out of the market and denying them [the opportunity] to develop in the direction that they all want”* (H). An alternative approach was the adoption of existing criteria from external bodies such as international labor standards from the International Labor Organization (ILO), United Nations (UN) guidelines, Organization for Economic Cooperation and Development (OECD) guidelines and the Social Accountability Institute’s SA8000 standard. Advocates of the use of external criteria explained how such measures were developed to be universally applicable and standardised, thus permitting comparison across organizations and chains. Regardless of how measurement criteria were developed and selected, for all assessments they were reviewed by the assessor on a 5 year cycle. For some, external factors such as a change in global pricing, particularly for coffee or tea, would trigger an additional ad hoc review.

Performance measures: Whilst two different approaches to the development of measurement criteria emerged, the end result was very similar. All of the third party assessors used measures that focused on industrial relations, working conditions, remuneration and labor. This was unsurprising due to the similarity of the overarching aim of each assessor. It is important to

note how the way in which a good is produced and traded differs, and so beneath the performance measures there were often additional product specific criteria. Examples of these criteria were found for tea, coffee and bananas.

It became apparent during the analysis of the primary and secondary data that whilst the assessment initiatives had clear performance measures (i.e. use of forced labor, use of child labor) the target was, unsurprisingly, zero - i.e. no forced labor in the organization/supply chain. In essence, most of the measures operated in a binary fashion as the actor under scrutiny either met the target or did not. There was recognition of the potential shortcomings of this approach, particularly if longer hours were required over a fixed period to meet the demands of the chain and its customers. For example, *“working hours is a very hot topic because you cannot have the type of supply chain management you have at the moment and expect working hours to be reduced”* (D). The challenges of measurement appeared to be a longstanding issue. It was noted how *“even though there are some hot topics that are hot, they’re not necessarily new”* (I), and how current measures were perceived as overly simplistic by some as *“at the moment it is as if someone is passing or failing and in real life scenarios it is not always that black and white”* (E).

Focus of measurement: Differences in the focus of measurement were identified. Six of the assessors adopted a supply chain perspective in which it was stated that every organization in the chain was included in the assessment. These assessors explained how they took a product approach to assessment, and hence were seeking to assure the conditions under which a product had been produced and traded. The remaining four assessors focused on individual organizations in the chain, usually on the producer or raw material supplier. Such assessors explained how it was very difficult to follow supply chains, particularly for products such as handicrafts, clothing and footwear, due to the number of suppliers involved and the proliferation of products. With coffee, for example, the product lines are limited as compared with supply chains producing handicrafts. Third party assessors with an organizational rather than complete chain focus stressed the importance of understanding performance at the ‘source’ or ‘origin’ of the supply chain.

Data collection: In comparing the ten assessors, the data collection process occurred over a period of between 2-6 years. All assessors utilized on-site audits as a key data collection tool, which was seen as an important differentiator when compared with mandatory or corporate

assessments in which it was not used. *“One of the biggest complaints we have is that we are extremely rigorous and that we know there is always an aspect as an audit team that people feel we are a bit too strict”* (E). Some interviewees commented on their perception that validation for assessments that do not require an audit are easy to appropriate. *“In [names different countries] you could call a factory and the manager would say ‘which [assessment] do you need, which does your client [in the supply chain] need? Give me two hours and I will get it for you.’ The worst part ...was that everyone knew that the certificate [of assessment] was fake”* (D). Yet whilst continuing to utilize audits, assessors were sceptical of their contribution to performance improvement. *“Years of auditing has not done much to raise the bar...there are only so many audits you can do when you don’t see a lot of improvement (I).”* The frequency of audits was based on an internal risk based system and/or past performance. In addition to audits, assessors discussed supplementary mechanisms to gather data. Self-assessment reports submitted to the assessor prior to the audit were common. Some assessors appeared able to trace monetary transactions to ensure that the agreed price for a product had been paid along the length of the supply chain.

All of the third party assessors employed auditors that were normally based in the same country as the actor being audited. It was stressed how auditors required local knowledge, an understanding of the local language *“and [an understanding] of the local social behaviour as in a lot of countries where we operate we are with producers who do not have access to education and development so we need to talk to them in a different way when we want to check for compliance”* (E). Some of the assessors were explicit that their body of auditors worked for them exclusively, whereas others utilized auditors that could have been employed across a range of third party assessors. A number of the assessors did not permit one auditor to conduct more than 3 or 4 audits on the same organization as a way of guarding against over familiarity and maintaining impartiality of assessment. Not all auditors had the same skills and expertise, and hence some third party assessors managed their auditors in terms of themes e.g. some were grouped under ‘social compliance’ and audited gender equality and labor democracy at an organization level. Other auditors had a supply chain focus and audited traceability across an entire supply chain. It is important to note that in all cases the cost of the audit (and associated measurement activities) was borne by the organization being audited. The fee was normally paid directly to the auditor.

ii) Assessing and communicating social sustainability performance

In examining the assessment and communication activities of the third party assessors, three themes require consideration:

- Performance assessment.
- Supplier development.
- Configuration of supply chains.

Performance assessment: The processes for assessing the data collected through audit, and supplementary activities, was very similar across all ten assessors. It was a formal and structured process that required all information to be returned to a central repository to analysts based at the main office. Following the analysis, areas in which the actor(s) under scrutiny had not met the performance standard were identified. In describing the assessment process, Assessor A remarked *“inherent in auditing is a trust in the future, and so you verify, then see if the trust was deserved.”* Across the interviewees, areas for improvement were often termed as ‘non-compliance.’ Action plans for improvement and associated timescales were then either developed and directed by the assessor, or agreed in consultation with assessor, auditor and the actor/supply chain under scrutiny.

From our examples of third party assessment we found no standard timescales for re-assessment. Some were very clear that it must occur within, for example, two years, whereas other had a different view: *“We don’t have timeframes for compliance progress as the realities are so complex that to say in 6 years you should have provided, I don’t know, full training to all producers on these aspects, how do you guarantee [organizations] can do this?”* (H). Some of the assessors published the action plans, and follow up activity, of actors/supply chains on their website. This appeared to be seen as a mechanism for improving the robustness of the process, and also acting as a signal to stakeholders of the legitimacy of the assessment. *“The fact that we report out on every single monitoring report with company response and remediation. Even though sometimes that remediation cannot be as robust as we’d like. The fact this it is still reported out publicly, I think, sets us apart from what I’ve seen from other [assessment] organizations”* (I). Not all assessors were as confident. *“After Rana Plaza, [the site in Bangladesh of clothing factories supplying retailers including Inditex, Mango and Primark that collapsed in April 2013] what happened was there were all these fancy [measurement] initiatives that were set up...but at the same time it hasn’t done much for the workers or the working conditions sadly. There are some companies who are squeezing the*

price [along the supply chain] to cover the cost of their court case” (D). For all of the assessors, if logos or certification was to be awarded, use would not be permitted until the third party assessor was satisfied that the level of performance had met the required standard.

Supplier development: Some third party assessors offered supplier development support as part of the assessment process. Optional peer visits in which a mock audit was undertaken and feedback provided prior to a formal audit were available. Assessors perceived this as way to promote learning through the sharing of good practice. *“Having that friendly person come in, who is from another organization, they can tell you what they did, so it is more than a friend, it is hopefully an expert friend” (F).* Peer visits were often used by organizations that were new to the process or were working through action plans as an outcome of a previous assessment. The cost of the mock audit was paid directly to the auditor.

Configuration of supply chains: In managing performance, it would appear that some assessors actively engaged in supply chain configuration through the sourcing of suppliers. If there was demand for a socially sustainable good that could not be satisfied, assessors would attempt to source a supplier. *“We have a [name of department] that constantly seeks new producers that the system needs, wants and can build a market for. That is a way we try and get producers into the system” (A).* The conversations on this theme were in line with previous research on the competitive nature of third party social sustainability assessment as interviewees spoke of getting more ‘clients’ and working with multi-national manufacturers and retailers to adopt their particular assessment. *“What I have seen is a proliferation of stakeholder initiatives that compete with each other and fight for the right for a place in the sun” (D).*

5.0 Discussion: Third party assessors as a bridging mechanism in socially sustainable supply chains

From our analysis we were able to identify three different approaches to social sustainability assessment in multi-tiered supply chains. In terms of our focus on information processing theory, and the role of the assessor as a bridge, there are two interesting and important differences between the approaches to assessment. The first is the design of the measurement system and how this has a clear focus on monitoring the actors in the supply chain. The second is the lack of focus on all supply chain tiers. This is particularly illuminating as it highlights how the assessors may act as a bridge between upstream suppliers and consumers, however

there are limited bridging activities carried out by the assessors that include all tiers. The weak bridging that has been identified has implications for the assurance of the social sustainability credentials of products if only selected tiers of the supply chain are included in assessment; this would only serve to reduce sustainability uncertainty in part of the chain.

5.1 The assessor as a monitor

In considering how performance measures are arrived at, it would appear that for Approaches 1 and 2 the requirements of different stakeholders have been included, as advised by Bititci *et al.* (1997; 2005). Approach 3 used existing measures; a method with potential shortcomings as the measures may be less relevant and focused than those designed specifically for the business (Kennerley and Neely, 2002). There may also be a lack of buy-in if stakeholders feel that they have not had input into the measurement system. This may compound the perception of social sustainability assessment being outsourced (Renard, 2005). Conversely, using external measures may overcome challenges identified with supply chain actors agreeing on performance metrics (Longoni and Cagliano, 2015). In requiring supply chain actors to adhere to measurement criteria, however these have been developed, the assessors are engaging in bridging activities as collaborative structures have been developed (Bode *et al.*, 2011).

Yet whilst our focus was on the third party assessor rather than the actors in the supply chain, it is nevertheless worthy of note how the two different approaches to developing measures resulted in an identical outcome. This may be due to the context, in that the measures of performance are so clearly focused on key aspects of social sustainability there is no need for them to be tailored to a particular organization or supply chain. It may also be the case that those assessments that developed measures through internal consultation were already acquainted with ILO, UN and/or OECD guidelines and used the consultation process to validate existing measures that are perceived as good practice. The similarity observed in the framing of the measures used appears to be at odds with the notion of a lack of a clear definition of the concept of social sustainability, and suggests that the operationalization of the concept is now far less opaque than has been previously reported.

All assessors engaged in audit, indicating that it is an expectation in this context. This finding is consistent with the view that in developed markets, customers expect the enforcement of social sustainability norms (Huq *et al.*, 2016). For all Approaches the focus on audit permits on-site assessment, however previous work has noted its shortcomings, particularly through

mock compliance (Huq *et al.*, 2014). This theme did not arise in our study; however the efficacy of an audit snapshot to be indicative of normative practices was questioned. Thus one could consider whether a buffering approach in line with information processing theory might also be called for by assessors in which overlapping assessments are used to reduce the uncertainty associated with a single audit and monitoring body, albeit with the risk of “audit fatigue” (Marshall *et al.*, 2016). For Approaches 2 and 3 the audit has even greater significance as the findings from one or two actors are used to demonstrate the overall performance of the supply chain. In these assessments upstream actors are required to pay for audits and associated assessment activities. The design of assessment systems thus has implications for the appropriation of rents across the chain as there appears to be no clear attribution of risk and reward. In our study we find that the cost of assessment can sit squarely with producers/raw material suppliers and so the cost of quality assurance, in this case social sustainability, has shifted from retailers to upstream suppliers. This practice allows retailers to capitalize on socially sustainable supply chain rents and to use the practices of the chain as a retail marketing tool (Hatanaka *et al.*, 2005). As the producer/raw material supplier may also be responsible for financing re-assessment audits, important questions remain about the appropriation of profits across the chain and the rationale for requiring those actors upstream to finance activities that potentially benefit all supply chain actors.

5.2 Weak bridging activities across the supply chain

In terms of the focus of assessment, for Approach 1, the emphasis was on the multi-tiers of the global supply chain. It is therefore anticipated that assessment here permits a level of transparency that is greater than in Approach 2 or Approach 3 wherein only selected organizations in the chain are part of the assessment. For Approaches 2 and 3, the decision not to examine the entire supply chain seems contradictory to assuring the production and trading credentials of a credence good. If likened to a “bridge” in information processing theory, these Approaches to assessment appear unable to completely reduce the uncertainty related to social sustainability disruptions (Bode *et al.*, 2011) by offering only limited information processing to those using the assessment. Given that most serious social sustainability problems are often caused by suppliers in the lower tiers (Tachizawa and Wong, 2014), the capacity of these Approaches to provide information processing capabilities in excess of that provided by a single supply chain actor is questionable. Tachizawa and Wong (2014) suggest that companies should have oversight of the third parties they have delegated monitoring activities to. Given the limited visibility and supply chain scope of some of the Approaches to assessment it would

seem advisable for supply chain actors to engage in some level of additional monitoring to buffer against unexpected disruptions.

Whilst recognising how Approaches 2 and 3 often focus on the producer/raw material supplier in the chain, and hence have an understanding of the credentials of the credence good at its ‘source’, there seems to be limited focus on the way in which the good is produced and traded further down the chain. Importantly, Approaches 2 and 3 may allow the expansion of actors that do not have social sustainability credentials into supply chains deemed as socially sustainable. This may be particularly prevalent in packaging and distribution activities where forced labor and trafficking are reported (Berlan, 2013). As the assessment focus here is on only limited tiers of the chain, there is greater opportunity for actors downstream to become part of the chain without being subject to the same scrutiny as those further upstream.

Understanding the differences between social sustainability assessment practices has been identified as causing consumer confusion (Ruben and Zuniga, 2011). As discussed, because consumers cannot assess the purported characteristics of a credence good, these characteristics need to be provided. Consumers may be unaware of any differences in assessment practices, particularly in terms of which tiers in the supply chain have been assessed, and if not communicated explicitly, stakeholder confidence in the credentials of goods traded as socially sustainable may erode. As noted, consumer confidence is crucial to the sale of goods that trade on their social sustainability characteristics. Based on our empirical findings, we have developed Figure 2 to demonstrate how only Approach 1 can provide sufficient bridging for multi-tiered supply chains.

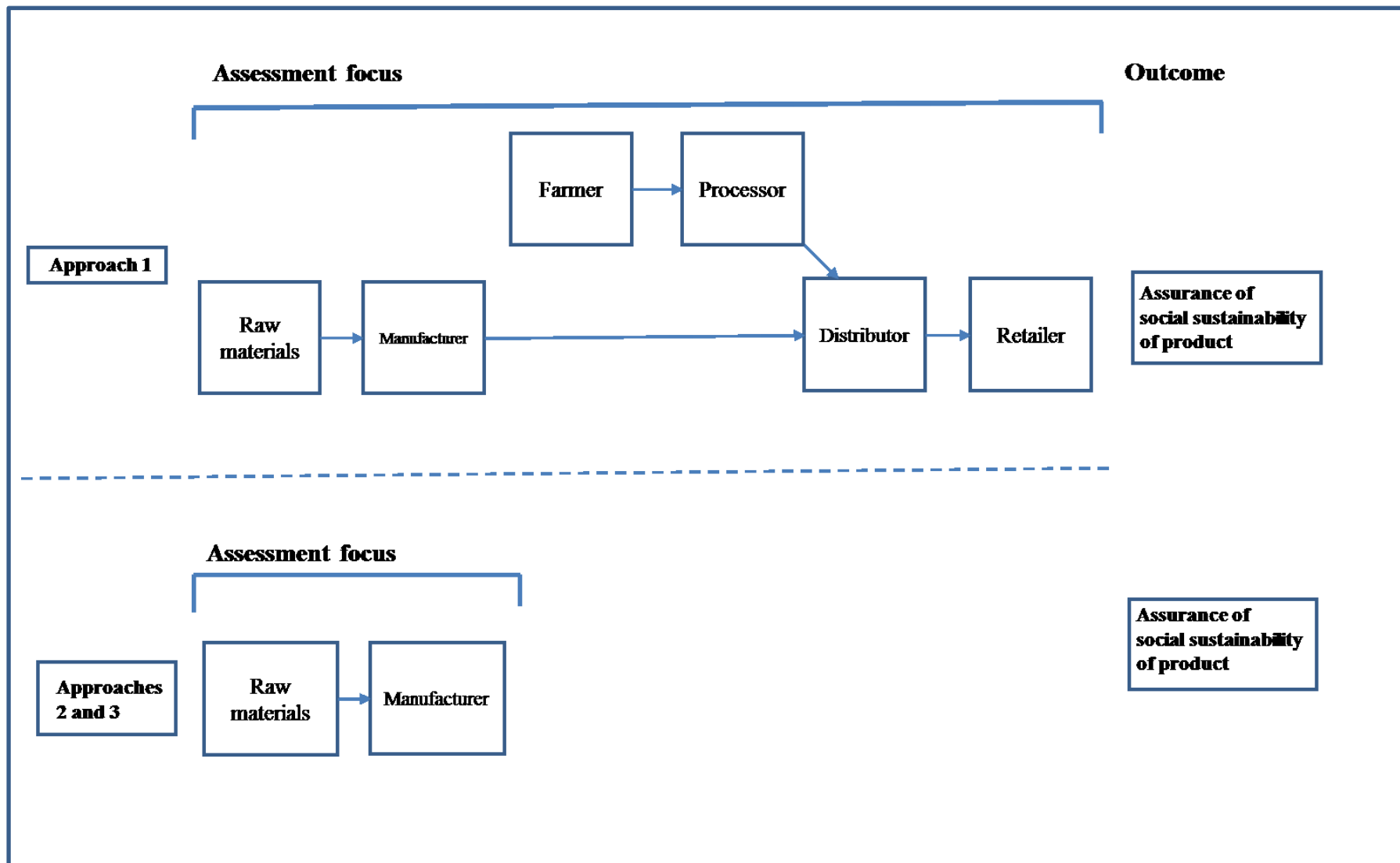


Figure 2 – Bridging activities of assessment approaches identified

Approach 1 permits a degree of scrutiny that may act as a barrier to entry, particularly for those organizations that cannot afford to make the necessary investment and changes required for a positive assessment. Yet as the entire chain is aligned to one particular assessor, supply chains in Approach 1 may experience significant switching costs if a decision is taken to move to a different assessor. Switching costs are not only pertinent to those in Approach 1 assessment. We noted a willingness of assessors of all Approaches to reconfigure supply chains to satisfy perceived demand. In such cases it is not the chain or its actors that are approaching the third party assessor, as per the relationship discussed by Hatanaka *et al.* (2005), but the assessor actively seeking upstream actors to join their particular form of assessment. The producer/raw material supplier thus becomes dependent on the activities of the assessor to promote and sell the product.

Due to the time and money invested in achieving a positive assessment, and its significance in the global market, actors may view an exit from the third party assessor as unattractive. This finding is important as in considering the literature we likened the original fair trade supply chain practices to those akin to Gereffi *et al.*'s (2005) relational value chain; they were reliant on the exchange of tacit information, complementary competencies and reputation. From our empirical findings, the governance of socially sustainable supply chains appears to have moved away from tacit information sharing and complementary competencies towards intervention and control from third party assessors. Our findings suggest that the governance practices of the assessor are more on a par with Gereffi *et al.*'s (2005) captive value chains whereby the producer is dependent on the activities of the assessor to promote and sell the product. In consequence, the role of the third party assessor requires clarification. Our findings show assessors acting simultaneously as monitor, collaborative partner and engaging in sourcing decisions. This is a very different proposition to inviting a third party to act as an independent evaluator to better co-ordinate information processing and reduce sustainability uncertainty across multiple supply chain tiers.

6.0 Conclusions, limitations and further work

Sustainability related information processing is of prime importance to current complex supply chains, but has received limited empirical examination (Busse *et al.*, 2017). Our study makes two important contributions. Firstly, through our empirical investigation, we are able to demonstrate how the assessment of social sustainability differs across third party assessors.

Studies on third party assessment often allude to the practices as homogenous and we are able to identify how they differ in the context of social sustainability. Secondly, we highlight the lack of clarity around the role of the assessor. In line with information processing theory, we note how assessments act as a bridge in the supply chain. Their monitoring is used to mitigate the uncertainty associated with social sustainability practices, particularly upstream in the supply chain. We show how the scope of the assessment can be limited to one tier, and we find only one approach to assessment that examined the entire supply chain. Some approaches to social sustainability assessment therefore offer limited information processing capabilities, and leave the participating companies open to sustainability uncertainty. It is not only the participating companies that are left vulnerable, but also the reputation of the assessors. Stakeholders may perceive that a (social) sustainability certification or logo on a product guarantees visibility across a multi-tiered global supply chain, whereas our exploratory findings deem this not to be the case for those assessors adopting Approaches 2 or 3. In not assessing the entire supply chain, these assessors are at risk of being accused of misrepresentation should an activity in the unassessed parts of the chain come to light that does not comply with the product's perceived sustainability credentials, particularly if stakeholders perceive sustainability to encompass the entire supply chain. To mitigate such risk, and increase the social sustainability of global supply chains more generally, we would recommend assessors to consider moving more towards Approach 1. We recognise, however, that Approach 1 may be more costly and time consuming than Approaches 2 or 3. Approaches 2 or 3 may also provide feedback in a more timely fashion if only one or two tiers of the chain are being assessed, which may be important to certain supply chains. We find sustainability assessment to be a strategic decision for supply chain actors that requires focus on what is to be achieved, how risks can be mitigated and stakeholder expectations met. Such decisions will inform which approach to assessment is the best fit. We suggest that dialogue between assessors and supply chains is important in ensuring that assessment is a strategic, rather than operational, activity that fulfils the information processing needs of supply chain actors.

For the monitoring of multi-tier supply chains, we show how assessors may operate in multiple simultaneous capacities. This is an important finding, as in examining research on third party assessment, the implication is that the assessor is an independent body that is approached by a supply chain actor. We found the converse; in some cases the assessor had an influence on sourcing decisions, and actively marketed its own particular 'brand' of assessment to producers, raw material suppliers, manufacturers and retailers. This finding calls into question

the independence of the assessor in some instances. In examining the governance of multi-tiered supply chains, our questions about the role of the assessor provide an interesting jumping off point for further work. As per previous studies, we acknowledge the proliferation of third party assessors focused on demonstrating the social sustainability credentials of everyday products. We find differences in the scope of assessment, and how goods are communicated as socially sustainable regardless of how many tiers of the supply chain are assessed. Further work on stakeholder perceptions of different third party assessors is an important step to identifying the importance of multi-tier visibility.

Additional avenues for further work include the inclusion of supply chain actors and stakeholders in the research design. As work is emerging that focuses on social sustainability enablers between the buyer-supplier dyad, we believe our study makes an important contribution in providing a different assessment perspective. To further advance this body of work, empirical studies examining stakeholder salience for sustainability assessment are important. Similarly, studies examining the cost of third party assessment and how risk and reward are appropriated across the chain would also make an important contribution from an assessment perspective. As noted at the outset, our study did not focus on the impact of assessment on social sustainability performance. Further work is required to unpack the ‘black box’ that separates the design of assessment and its intended outcome in this context (Bourne *et al.*, 2013).

Our focus here was on how third party assessors can be used to overcome supply chain visibility challenges to reduce sustainability uncertainty. We acknowledge that visibility is not the only barrier to social sustainability performance. Several other internal and external barriers to social sustainability have been identified in past research including, for example, financial and resource constraints, lack of awareness, partner reluctance and regulation (see e.g. Faisal, 2010; Walker and Jones, 2012). It would therefore be appropriate to investigate whether using external assessors assists in overcoming these barriers.

Our study utilizes empirical data collected across voluntary third party assessors operating on a global scale. It is one of few studies in this context that focus on the assessor rather than the buyer and/or supplier. It is, however, not without its limitations. As an exploratory study we focused on ten assessors. From the potential pool of sixteen assessors that we identified, we were pleased with this response, however we recognize that our findings are from a single

respondent and include relatively few examples. Further work could compare voluntary, mandatory and statutory socially sustainable assessment in order to elicit a wider sample from which to draw conclusions. Our findings show that whilst the ten assessors in our sample purport to assess supply chains, in practice this did not mean that they assessed every tier in a supply chain. In adopting a broader sample, further work could draw comparisons across a wider range of assessors which may highlight more approaches to assessment than the three identified in this study. It would also have been interesting to augment our primary data by interviewing auditors working in the field. As our budget did not permit extensive travel in the field, we were limited in this regard. Nevertheless, and despite these limitations, our study offers a platform for interesting further research in this area and highlights the importance of robust sustainability assessment for a range of stakeholders, particularly suppliers seeking access to new and potentially lucrative markets.

References

- Albersmeier, F., Schulze, H., Jahn, G. and Spiller, A. (2009), "The reliability of third-party certification in the food chain: From checklists to risk-oriented auditing", *Food Control*, Vol. 20 No. 10, pp. 927-935.
- Andorfer, V.A. and Liebe, U. (2012), "Research on Fair Trade consumption - A review", *Journal of Business Ethics*, Vol. 106 No. 4, pp. 415-435.
- Awaysheh, A. and Klassen, R. (2010), "The impact of supply chain structure on the use of supplier socially responsible practices", *International Journal of Operations and Production Management*, Vol. 30 No. 12, pp. 1246-1268.
- Ballet, J. and Carimentrand, A. (2010), "Fair trade and the depersonalization of ethics", *Journal of Business Ethics*, Vol. 92 No. 2, pp. 317-330.
- Berlan, A. (2013), "Social sustainability in agriculture: An anthropological perspective on child labor", *Journal of Development Studies*, Vol. 49, No. 8, pp. 1088-1100.
- Bernstein, S. and Cashore, B. (2007), "Can non-state global governance be legitimate? An analytical framework", *Regulation and Governance*, Vol. 1 No. 4, pp. 347-371.
- Bititci, U.S., Carrie, A.S. and McDevitt, L. (1997), "Integrated performance measurement systems: a development guide", *International Journal of Operations and Production Management*, Vol. 17 No. 5, pp. 522-534.
- Bititci, U.S., Mendibil, K., Martinez, V. and Albores, P. (2005), "Measuring and managing performance in extended enterprises", *International Journal of Operations and Production Management*, Vol. 25 No. 4, pp. 333-353.
- Bode, C., Wagner, S., Petersen, K. and Ellram, L. (2011), "Understanding responses to supply chain disruptions: Insights from information processing and resource dependence perspectives", *Academy of Management Journal*, Vol. 54, No. 4, pp. 833-856.
- Boughton, I. (2008, September 24th). Starbucks launch of ethical espresso draws criticism. *The Caterer*. Retrieved from <https://www.thecaterer.com/articles/323561/starbucks-launch-of-ethical-espresso-draws-criticism>
- Bourne, M., Pavlov, A., Franco-Santos, M., Lorenzo, L. and Mura, M. (2013), "Generating organizational performance: The contributing effects of performance measurement on

- human resource management systems", *International Journal of Operations and Production Management*, Vol. 33 No. 11/12, pp. 1599-1622.
- Brønn, P. and Vidaver-Cohen, D. (2009), "Corporate motives for social initiative: Legitimacy, sustainability, or the bottom line?", *Journal of Business Ethics*, Vol. 87 No. 1, pp. 91-109.
- Burritt, R. and Schaltegger, S. (2014), "Accounting towards sustainability in production and supply chains", *The British Accounting Review*, Vol. 46 No. 4, pp. 327-343.
- Busse, C., Meinlschmidt, J. and Foerstl, K. (2017), "Managing information processing needs in global supply chains: A prerequisite to sustainable supply chain management", *Journal of Supply Chain Management*, Vol. 53 No. 1, pp. 87-113.
- Doherty, B. and Huybrechts, B. (2013), "Connecting producers and consumers through fair and sustainable value chains", *Social Enterprise Journal*, Vol. 9 No. 1, pp. 4-10.
- Eisenhardt, K. M. and Graebner, M. E. (2007), "Theory building from cases; opportunities and challenges", *Academy of Management Journal*, Vol. 31 No. 3, pp. 488-511.
- Fahimnia, B., Sarkis, J. and Davarzani, H. (2015), "Green supply chain management: A review and bibliometric analysis", *International Journal of Production Economics*, Vol. 162, pp. 101-114.
- Faisal, M. (2010), "Analysing the barriers to corporate social responsibility in supply chains: an interpretive structural modelling approach", *International Journal of Logistics: Research and Applications*, Vol. 13 No. 3, pp. 179-195.
- Fan, H., Li, G., Sun, H. and Cheng, T. (2017), "An information processing perspective on supply chain risk management: Antecedents, mechanism, and consequences", *International Journal of Production Economics*, Vol. 185, pp. 63-75.
- Foerstl, K., Meinlschmidt, J. and Busse, C. (in press), "It's a match! Choosing information processing mechanisms to address sustainability-related uncertainty in sustainable supply management", *Journal of Purchasing and Supply Management*.
- Fransen, L.W. (2011), "Why do private governance organizations not converge? A political-institutional analysis of transnational labor standards regulation", *Governance*, Vol. 24 No. 2, pp. 359-387.
- Galbraith, J. R. 1973. Designing complex organizations. Reading, MA: Addison-Wesley.
- Gereffi, G., Humphrey, J. and Sturgeon, T. (2005), "The governance of global value chains", *Review of International Political Economy*, Vol. 12 No. 1, pp. 78-104.
- Gioia, D., Corley, K. and Hamilton, A. (2012), "Seeking qualitative rigour in inductive research: Notes on the Gioia methodology", *Organizational Research Methods*, Vol. 16 No. 1, pp. 15-31.
- Giovannucci, D. and Ponte, S. (2005), "Standards as a new form of social contract? Sustainability initiatives in the coffee industry", *Food Policy*, Vol. 30 No. 3, pp. 284-301.
- Govindan, K., Azevedo, S., Carvalho, H. and Cruz-Machado. (2014), "Impact of supply chain management practices on sustainability", *Journal of Cleaner Production*, Vol. 85, pp. 212-225.
- Govindan, K., Khodaverdi, R. and Jafarian, A. (2013), "A fuzzy multi criteria approach for measuring sustainability performance of a supplier based on triple bottom line approach", *Journal of Cleaner Production*, Vol. 47, pp 345-354.
- Hartlieb, S. and Jones, B. (2009), "Humanising business through ethical labelling: Progress and paradoxes in the UK", *Journal of Business Ethics*, Vol. 88 No. 3, pp. 583-600.
- Hassini, E., Surti, C. and Searcy, C. (2012), "A literature review and a case study of sustainable supply chains with a focus on metrics", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 69-82.

- Hatanaka, M., Bain, C. and Busch, L. (2005), "Third-party certification in the global agrifood system", *Food Policy*, Vol. 30 No. 3, pp. 354-369.
- Hatanaka, M. and Busch, L. (2008), "Third-party certification in the global agrifood system: An objective or socially mediated governance mechanism?", *Sociologia Ruralis*, Vol. 48 No. 1, pp. 73-91.
- Hughes, A. (2015), Retailers, corporate ethics and fair trade, in L. Raynolds and E. Bennett (Eds), *Handbook of Research on Fair Trade*, Edward Elgar Publishing Ltd, Cheltenham, pp. 298-315.
- Huq, F., Chowdhury, I. and Klassen, R. (2016), "Social management capabilities of multinational buying firms and their emerging market suppliers: An exploratory study of the clothing industry", *Journal of Operations Management*, Vol. 46, pp. 19-37.
- Huq, F., Stevenson, M. and Zorzini, M. (2014), "Social sustainability in developing country suppliers: An exploratory study in the ready made garments industry of Bangladesh", *International Journal of Operations and Production Management*, Vol. 34 No. 5, pp. 610-638.
- Karjalainen, K. and Moxham, C. (2013). Focus on Fairtrade: Propositions for integrating Fairtrade and SCM research. *Journal of Business Ethics*, Vol. 116 No. 2, pp. 267-282.
- Kauppi, K., Longoni, A., Caniato, F., and Kuula, M. (2016), "Managing country disruption risks and improving operational performance: Risk management along integrated supply chains", *International Journal of Production Economics*, Vol. 182, pp. 484-495.
- Kennerley, M. and Neely, A. (2002), "A framework of the factors affecting the evolution of performance measurement systems", *International Journal of Operations and Production Management*, Vol. 22 No. 11, pp. 1222-1245.
- Koh, S.C.L., Gunasekaran, A. and Tseng, C.S. (2012), "Cross-tier ripple and direct effects of directives WEEE and RoHS on greening a supply chain", *International Journal of Production Economics*, Vol. 140, pp. 305-317.
- Kreye, M. (2017), "Relational uncertainty in service dyads", *International Journal of Operations and Production Management*, Vol. 37 No. 3, pp.363-381.
- Langley, A. (1999), "Strategies for theorizing from process data", *Academy of Management Review*, Vol. 24 No. 4, pp. 691-710.
- Lincoln, Y.S. and Guba, E. (1985), *Naturalistic Enquiry*, Sage, Beverly Hills, CA.
- Liu, G., Shah, R. and Schroeder, R. (2010), "Managing demand and supply uncertainties to achieve mass customization ability", *Journal of Manufacturing Technology Management*, Vol. 21 No. 8, pp. 990-1012.
- Longoni, A. and Cagliano, R. (2015), "Cross-functional executive involvement and worker involvement in lean manufacturing and sustainability alignment", *International Journal of Operations and Production Management*, Vol. 35 No. 9, pp. 1332-1358.
- Marshall, D., McCarthy, L., McGrath, P. and Harrington, F. (2016), "What's your strategy for supply chain disclosure?" *MIT Sloan Management Review*, Vol. 57, No. 2, pp. 37-45.
- Miemczyk, J., Johnsen, T.E. and Macquet, M. (2012), "Sustainable purchasing and supply management: A structured literature review of definitions and measures at the dyad, chain and network levels", *Supply Chain Management: An International Journal*, Vol. 17 No. 5, pp. 478-496.
- Perry, P. and Towers, N. (2013), "Conceptual framework development: CSR implementation in fashion supply chains", *International Journal of Physical Distribution and Logistics Management*, Vol. 43 No. 5/6, pp. 478-501.
- Premkumar ,G., Ramamurthy, K. and Saunders, C. (2005), "Information processing view of organizations: An exploratory examination of fit in the context of interorganizational relationships", *Journal of Management Information Systems*, Vol. 22 No.1, pp. 257-294.

- Pullman, M. and Dillard, J. (2010), "Values based supply chain management and emergent organizational structures", *International Journal of Operations and Production Management*, Vol. 30 No. 7, pp. 744-771.
- Reinecke, J., Manning, S. and von Hagen, O. (2012), "The emergence of a standards market: Multiplicity of sustainability standards in the global coffee industry", *Organization Studies*, Vol. 33 No. 5-6, pp. 791-814.
- Renard, M.-C. (2005), "Quality certification, regulation and power in fair trade", *Journal of Rural Studies*, Vol. 21 No. 4, pp. 419-431.
- Ruben, R. and Zuniga, G. (2011), "How standards compete: Comparative impact of coffee certification schemes in Northern Nigeria", *Supply Chain Management: An International Journal*, Vol. 16 No. 2, pp. 98-109.
- Seuring, S. and Müller, M. (2008), "From a literature review to a conceptual framework for sustainable supply chain management", *Journal of Cleaner Production*, Vol. 16 No. 15, pp. 1699-1710.
- Srinivasan, R. and Swink, M. (in press), "An investigation of visibility and flexibility as complements to supply chain analytics: An organizational information processing theory perspective", *Production and Operations Management*.
- Tachizawa E. M. and Wong C. Y. (2014), "Towards a theory of multi-tier sustainable supply chains: a systematic literature review", *Supply Chain Management: An International Journal*, Vol. 19 No. 5/6, pp. 643-663.
- Varsei, M., Soosay, C., Fahimnia, B. and Sarkis, J. (2014), "Framing sustainability performance of supply chains with multidimensional indicators", *Supply Chain Management: An International Journal*, Vol. 19 No. 3, pp. 242-257.
- Voss, C., Tsikriktsis, N. and Frohlich, M. (2002) "Case research in operations management", *International Journal of Operations and Production Management*, Vol. 22 No. 2, pp. 195-219.
- Walker, H. and Jones, N. (2012), "Sustainable supply chain management across the UK private sector", *Supply Chain Management: An International Journal*, Vol. 17 No. 1, pp. 15-28.
- Whitehead, S. (2015, April 22). H&M's "conscious" collection? Don't buy into the hype. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/shannon-whitehead/hms-conscious-collection-_b_7107964.html
- Wilhelm, M., Blome, C., Bhakoo, V. and Paulraj, A. (2016), "Sustainability in multi-tier supply chains: Understanding the double role of the first-tier supplier", *Journal of Operations Management*, Vol. 41, pp 42-60.
- Yawar, S. and Seuring, S. (2017), "Management of social issues in supply chains: A literature review exploring social issues, actions and performance outcomes", *Journal of Business Ethics*, Vol. 141, No. 3, pp. 621-643.
- Zhu, S., Song, J., Hazen, B., Lee, K. and Cegielski, C. (2018), "How supply chain analytics enables operational supply chain transparency: An organizational information processing theory perspective", *International Journal of Physical Distribution & Logistics Management*, Vol. 48 No. 1, pp. 47-68.
- Zorzini, M., Hendry, L., Huq, F. and Stevenson, M. (2015), "Socially responsible sourcing: Reviewing the literature and its use of theory", *International Journal of Operations and Production Management*, Vol. 35 No. 1, pp. 60-109.